APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,145	11/10/2000	Arturo A. Rodriguez	A-6655	3251

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SCIENTIFIC-ATLANTA, INC.
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EXAMINER
LONSBERRY, HUNTER B

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/709,145	RODRIGUEZ, ARTURO A.
	Examiner	Art Unit	
	Hunter B. Lonsberry	2611	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 October 2004</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-40</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-40</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims have been considered but are moot

in view of the new ground(s) of rejection, however, upon further consideration of newly

discovered art, U.S. Patent 5,802,502 to Gell, is applied as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-7, 9-17, and 19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent

5,802,502 to Gell.

Regarding claims 1, 9, 11, and 19, Shah-Nazaroff discloses in figure 5, a

number of viewing options with prices for PPV and VOD listings, such as audio and

video quality upgrades and the ability to record, prices are higher for better quality video

as more bandwidth is consumed (column 2, lines 17-52, 63-67, column 3, lines 1-16,

65-67, Figure 4).

Shah-Nazaroff does not disclose that the bandwidth allocation information is

related to the bandwidth allocated to services between the digital broadband delivery

system and plurality of digital home communication terminals and dynamically assigning

a price criterion to a group of viewing options, each viewing option associated with a content delivery mode.

Gell discloses a database 905 which provides to a user with pricing information related to QoS for a program, as well as video resolution, and audio options, in response to a user request for VOD services (column 12, line 49-column 13, line 2), there may be multiple users (column 13, lines 40-47), the prices are generated dynamically, by receiving pricing from a number of different program providers (column 12, lines 49-60, column 13, lines 3-11, lowest price is selected based on QOS and quality selections, bandwidth allocation is the QOS settings, prices may be different for different delivery mediums, column 5, lines 38-55), thus enabling a user to choose the best balance of quality and price.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shah-Nazaroff to utilize the dynamic pricing and variable delivery methods of Gell, thus enabling a user to choose the best balance of quality and price.

Regarding claims 2, and 12, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices, user selections are transmitted to a server prior to the upgraded features being provided to the user (Figure 4).

Regarding claims 3-4, 10, 13-14, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices.

Gell discloses that a subscriber station transmits a request for programming, and

a database station provides price, and quality data to the user selection device (column

12, line61- column 13, line 11).

The combination of Shah-Nazaroff and Gell does not disclose receiving a

subscriber request that comprises a request for a list of available viewing options and

providing those options to the user in response to the request.

The examiner takes official notice that transmitting a price in response to a user

request is well known in the art, for example, when online shopping, products may be

listed without a price, but merely a link to further information on the product which

includes pricing information to aide a user in making a purchase.

Therefore, it would have been obvious to one skilled in the art at the time of

invention to modify the combination of Shah-Nazaroff and Gell to transmit pricing

information in response to a user request thus aiding a user in making a purchase.

Regarding claims 5 and 15, Shah-Nazaroff discloses in Figure 5, different pricing

options, which include VOD reservation option, which allows fewer simultaneous

broadcast in order to receive higher solution and definition (column 6, lines 31-40).

Regarding claims 6 and 16, Shah-Nazaroff discloses that a user may purchases

video and audio upgrades for a Video game, which are based upon how long a user

plays, upgraded options cost more due to additional bandwidth consumption (Figure 5,

column 2, lines 63-67, column 6, lines 41-47), VOD programs may also be viewed by a

user.

In a related embodiment, Gell discloses that users may be billed on a per minute,

per packet or per pit rate (column 5, 37-46).

The combination of Shah-Nazaroff and Gell does not disclose a random access

option and a fee associated with a length of time that random access options are

accessed.

The examiner takes official notice that random access options, such as trick play

modes, used in conjunction with VOD are well known in the art. Trick play streams are

additional data streams which take up additional bandwidth and enable a user to

rewatch an interesting program segment.

Therefore it would have been obvious to one skilled in the art at the time of

invention to modify the combination of Shah-Nazaroff and Gell which charges users

additional fees for utilizing more bandwidth, to include a trick play option, and charge a

user additional fees to compensate the provider for the additional bandwidth costs, thus

enabling a provider to maintain QoS requirements to their existing customers.

Regarding claims 7 and 17, the combination of Shah-Nazaroff and Gell

discloses different pricing schemes for varying levels of QoS and video options

selected.

The combination of Shah-Nazaroff and Gell fails to disclose changing the price of

viewing options based on subscriber profile data or subscriber priority data.

The examiner takes official notice that charging different prices to customers based on customer priority is notoriously well known in the art. For example, high profile customers may receive lower prices in order to ensure their loyalty.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff and Gell to include subscriber priority as a price criterion, in order to encourage subscriber loyalty.

3.   Claims 20-26 and 28-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell and further in view of U.S. Patent 6,697,376 to Son.

Regarding claims 20 and 28, Shah-Nazaroff discloses in figure , a bandwidth allocation manager(a server system with broadcast source i/o module 830, billing I/O 840, and client I/O 820, column 10, lines 1-36) that determines bandwidth allocation by dynamically assigning a content delivery mode to a plurality of digital transmission channels (column 6, lines 31-40, user orders a VOD program from a satellite provider, and is assigned to a channel with fewer simultaneous transmissions in order to receive a higher quality picture/resolution, a user may receive access to a CATV source with upgradeable options, column6, lines 16-30, thus assigning more bandwidth to a channel which carries an upgraded program feature),

A pricing system that receiving bandwidth allocation information from the bandwidth allocation manager and assigns a price criterion to a group of bandwidth

options (figure 5, view options and prices, this may be stored in a billing server, column 5, lines 54-67).

Shah-Nazaroff does not disclose dynamically assigning a price criterion to a group of viewing options based in part on bandwidth allocation information or positioning the bandwidth manager in the headend.

Gell discloses a database 905 which provides to a user with pricing information related to QoS for a program, as well as video resolution, and audio options, in response to a user request for VOD services (column 12, line 49-column 13, line 2), there may be multiple users (column 13, lines 40-47), the prices are generated dynamically, by receiving pricing from a number of different program providers (column 12, lines 49-60, column 13, lines 3-11, lowest price is selected based on QOS and quality selections, bandwidth allocation is the QOS settings for multiple channels and interfaces, prices may be different for different delivery mediums, column 5, lines 38-55), thus enabling a user to choose the best balance of quality and price.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shah-Nazaroff to utilize the dynamic pricing and variable delivery methods of Gell, thus enabling a user to choose the best balance of quality and price.

The combination of Shah-Nazaroff and Gell does not disclose placing the bandwidth allocation manager in the headend.

Son discloses in figure 3, a number of SCM 314-317, located within headend 304, which act as bandwidth allocation managers for a number of subscriber stations 305-308 (column 6, lines 33—column 7, line 32), the SCMs provide a number of VOD

channels via local nodes (column 7, line 47-51), the allocation process takes place in figure 7, in which a user requests VOD services in step 702, a SCM allocates bandwidth for the user and a PID for the user (step 310) and transmits the program in step 718 (column 9, lines 63-column 10, line 22), thus reducing latency by placing the bandwidth allocation manager within the headend.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff and Gell to place the bandwidth manager within a headend, as taught by Son, thus reducing latency by placing the bandwidth allocation manager within the headend.

Regarding claims 21 and 31, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices, user selections are transmitted to a server prior to the upgraded features being provided to the user (Figure 4).

Regarding claims 22-23 and 30, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices.

Gell discloses that a subscriber station transmits a request for programming, and a database station provides price, and quality data to the user selection device (column 12, line61- column 13, line 11).

The combination of Shah-Nazaroff, Gell and Son does not disclose receiving a subscriber request that comprises a request for a list of available viewing options and providing those options to the user in response to the request.

The examiner takes official notice that transmitting a price in response to a user request is well known in the art, for example, when online shopping, products may be listed without a price, but merely a link to further information on the product which includes pricing information to aide a user in making a purchase.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Son to transmit pricing information in response to a user request thus aiding a user in making a purchase.

Regarding claim 24, Shah-Nazaroff discloses in Figure 5, different pricing options, which include VOD reservation option, which allows fewer simultaneous broadcast in order to receive higher solution and definition (column 6, lines 31-40).

Regarding claims 25 and 43, Shah-Nazaroff discloses that a user may purchases video and audio upgrades for a Video game, which are based upon how long a user plays, upgraded options cost more due to additional bandwidth consumption (Figure 5, column 2, lines 63-67, column 6, lines 41-47), VOD programs may also be viewed by a user.

In a related embodiment, Gell discloses that users may be billed on a per minute, per packet or per pit rate (column 5, 37-46).

The combination of Shah-Nazaroff, Son and Gell does not disclose a random access option and a fee associated with a length of time that random access options are accessed.

The examiner takes official notice that random access options, such as trick play modes, used in conjunction with VOD are well known in the art. Trick play streams are additional data streams which take up additional bandwidth and enable a user to rewatch an interesting program segment.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, and Son which charges users additional fees for utilizing more bandwidth, to include a trick play option, and charge a user additional fees to compensate the provider for the additional bandwidth costs, thus enabling a provider to maintain QoS requirements to their existing customers.

Regarding claims 26 and 44, the combination of Shah-Nazaroff, Gell and Son discloses different pricing schemes for varying levels of QoS and video options selected.

The combination of Shah-Nazaroff, Gell and Son fails to disclose changing the price of viewing options based on subscriber profile data or subscriber priority data.

The examiner takes official notice that charging different prices to customers based on customer priority is notoriously well known in the art. For example, high profile customers may receive lower prices in order to ensure their loyalty.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Son to include subscriber priority as a price criterion, in order to encourage subscriber loyalty.

Regarding claim 28, Shah-Nazaroff discloses in figure 5, transmission of PPV

programming. Shah-Nazaroff must make use of a bandwidth allocation schedule as

PPV programs are transmitted on regular intervals.

Regarding claims 29, 37, and 41, Shah-Nazaroff discloses in figure , a bandwidth

allocation manager(a server system with broadcast source i/o module 830, billing I/O

840, and client I/O 820, column 10, lines 1-36) that determines bandwidth allocation by

dynamically assigning a content delivery mode to a plurality of digital transmission

channels (column 6, lines 31-40, user orders a VOD program from a satellite provider,

and is assigned to a channel with fewer simultaneous transmissions in order to receive

a higher quality picture/resolution, a user may receive access to a CATV source with

upgradeable options, column6, lines 16-30, thus assigning more bandwidth to a channel

which carries an upgraded program feature),

A pricing system that receiving bandwidth allocation information from the

bandwidth allocation manager and assigns a price criterion to a group of bandwidth

options (figure 5, view options and prices, this may be stored in a billing server, column

5, lines 54-67).

Shah-Nazaroff does not disclose dynamically assigning a price criterion to a

group of viewing options based in part on bandwidth allocation information or

positioning the bandwidth manager in the headend, or the use of a DHCT which

receives and transmits requests to the headend.

Gell discloses a database 905 which provides to a user with pricing information

related to QoS for a program, as well as video resolution, and audio options, in

response to a user request for VOD services (column 12, line 49-column 13, line 2),

there may be multiple users (column 13, lines 40-47), the prices are generated

dynamically, by receiving pricing from a number of different program providers (column

12, lines 49-60, column 13, lines 3-11, lowest price is selected based on QOS and

quality selections, bandwidth allocation is the QOS settings for multiple channels and

interfaces, prices may be different for different delivery mediums, column 5, lines 38-

55), thus enabling a user to choose the best balance of quality and price.

Therefore, it would have been obvious to one skilled in the art at the time of

invention to modify Shah-Nazaroff to utilize the dynamic pricing and variable delivery

methods of Gell, thus enabling a user to choose the best balance of quality and price.

The combination of Shah-Nazaroff and Gell does not disclose placing the

bandwidth allocation manager in the headend.

Son discloses in figure 3, a number of SCM 314-317, located within headend

304, which act as bandwidth allocation managers for a number of subscriber stations

305-308 (column 6, lines 33—column 7, line 32), the SCMs provide a number of VOD

channels via local nodes (column 7, line 47-51), the allocation process takes place in

figure 7, in which a user requests VOD services in step 702, a SCM allocates bandwidth

for the user and a PID for the user (step 310) and transmits the program in step 718

(column 9, lines 63-column 10, line 22), the user STB may be a digital STB capable of

requesting video programming form the headend 304 (column 6, lines 36-39,

subscribers communicate with the headend via the upstream return path via a tuner, column 5, lines 45-57) thus reducing latency by placing the bandwidth allocation manager within the headend, and allowing for interactive communications between the user and the headend.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff and Gell to place the bandwidth manager within a headend, as taught by Son, thus reducing latency by placing the bandwidth allocation manager within the headend, and allowing for interactive communications between the user and the headend.

Regarding claim 32, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

The combination of Shah-Nazaroff, Gell and Son do not disclose displaying a utilization indication of a viewing option.

The examiner takes official notice that displaying an indicator for utilizing a viewing option is well known in the art. Indicators help remind a user of what options they have selected.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Son to display an indication that a viewing option is being used, thus reminding a user of which options they have selected.

Regarding claims 33 and 34, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

The combination of Shah-Nazaroff, Gell and Son do not disclose displaying an elapsed time or displaying an indication of usage of a viewing option intermittently.

The examiner takes official notice that displaying an elapsed time, for example an indicator, which notes that the program started 5 minutes ago, and an indicator displayed intermittently, such as a trick play indicator, is well known in the art. Elapsed time indicators enable a user to know how much of a program they have missed, and to display an indicator intermittently, to remind a user of the viewing option they are utilizing.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Son to display an elapsed time, thus enabling a user to know how much of a program they have missed, and to display an indicator intermittently, to remind a user of the viewing option they are utilizing.

Regarding claims 35 and 36, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

Shah-Nazaroff, Gell and Son do not disclose displaying an indication of usage of a viewing option after a user uses a random access feature.

The examiner takes official notice that displaying a trick play indicator is well known in the art. Trick play indicators enable a user to know when a trick play feature has been activated.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Son to utilize a trick play indicator, to let a user know when a trick play feature is activated.

Regarding claim 38, Shah-Nazaroff discloses a menu of viewing options.

Shah-Nazaroff, Gell and Son do not disclose displaying a user selectable icon representing a menu of available alternate viewing options.

The examiner takes official notice that the use of a user selectable icon within an electronic program guide to bring up a menu of options is well known in the art. A user selectable icon enables a user to recognize when additional options are available for a program.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the user interface of the combination of Shah-Nazaroff, Gell and Son to include a user selectable icon, thus enabling a user to recognize when additional options are available for a program.

Regarding claims 39 and 40, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

The combination of Shah-Nazaroff, Gell and Son does not disclose displaying an indication of usage of a viewing option after a user uses a random access feature.

The examiner takes official notice that displaying a trick play indicator is well known in the art. Trick play indicators enable a user to recognize when a trick play feature has been activated.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Son to utilize a trick play indicator, to let a user know when a trick play feature is activated.

Regarding claim 42, Shah-Nazaroff discloses in Figure 5, different pricing options, which include a normal, play option.

4.   Claims 8 and 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell in further view of U.S. Patent 6,057,872 to Candelore.

Regarding claims 8 and 18, Shah-Nazaroff discloses a system, which provides a number of viewing options to a user.

The combination of Shah-Nazaroff and Gell does not show assigning a price criterion to a subscriber incentive.

Candelore discloses a number of digital coupons which may be offered to a subscriber for the purchase of pay programs, different criteria allow different numbers of coupons to be transmitted to a user, such as the number of pay per view programs

watched, recent programming upgrades and the like, trial of premium services may also be offered (column 5, line 6-column 7, line 5, Figure 4-7), thus encouraging a user to try out additional programming.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the dynamic pricing of viewing options as taught by the combination of Shah-Nazaroff and Gell to include a subscriber incentive as taught by Candelore, thus encouraging a user to try out additional programming.

5.   Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell in further view of U.S. Patent 6,697,376 to Son in further view of U.S. Patent 6,057,872 to Candelore.

Regarding claim 27, Shah-Nazaroff discloses a system, which provides a number of viewing options to a user.

The combination of Shah-Nazaroff, Gell and Son does not show assigning a price criterion to a subscriber incentive.

Candelore discloses a number of digital coupons which may be offered to a subscriber for the purchase of pay programs, different criteria allow different numbers of coupons to be transmitted to a user, such as the number of pay per view programs watched, recent programming upgrades and the like, trial of premium services may also be offered (column 5, line 6-column 7, line 5, Figure 4-7), thus encouraging a user to try out additional programming.

Therefore it would have been obvious to one skilled in the art at the time of

invention to modify the dynamic pricing of viewing options as taught by the combination

of Shah-Nazaroff, Gell and Son to include a subscriber incentive as taught by

Candelore, thus encouraging a user to try out additional programming.

Claims 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell

and US. Patent 6,697,376 to Son in further view of U.S. Patent 6,701,528 to Arsenault.

Regarding claims 45 and 46, Shah-Nazaroff discloses a menu, which enables a

user to select video options, and also includes a VCR 606 (figure 6).

The combination of Shah-Nazaroff, Gell and Son does not disclose downloading

and storing content in a storage device during a time of low bandwidth consumption.

Arsenault discloses a VOD system, which pre-stores a segment in a STB (Figure

2), segments may be downloaded in the middle of the night when there is more

available bandwidth (column1 6, lines 25-49), thus optimizing bandwidth utilization and

provide on demand functions without consuming additional bandwidth.

Therefore it would have been obvious to one skilled in the art at the time of

invention to modify the combination of Shah-Nazaroff, Gell and Son to download VOD

program segments overnight when more bandwidth is available as taught by Arsenault,

thus optimizing bandwidth utilization and provide on demand functions without

consuming additional bandwidth.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hunter B. Lonsberry whose telephone number is 571-

272-7298. The examiner can normally be reached on Monday-Friday during normal

business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

HBL

HAI TRAN
PRIMARY EXAMINER